

IN THE CLAIMS:

Please cancel Claims 1, 34 and 36, and amend the claims as follows.

Claim 35 replaces Claim 1 as the new independent claim, and is presented first for convenience.

35. (Once Amended) An isolated nucleic acid comprising a sequence selected from

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- (a) a sequence according to nucleotide No. 372 to nucleotide No. 2681 of SEQ ID NO: 1, nucleotide No. 335 to nucleotide No. 1822 of SEQ ID NO: 3 or nucleotide No. 95 to nucleotide No. 1597 of SEQ ID NO: 5,
 - (b) a sequence complementary to the sequences defined under (a), and
 - (c) a sequence which, due to degeneracy of the genetic code, encodes the same amino acid sequences as those encoded by the sequences defined under (a),

wherein said nucleic acid encodes a complete or partial acetylcholine receptor subunit having the ability to form homooligomeric acetylcholine receptors when expressed in a host cell.

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2. (Twice Amended) A vector which comprises at least one nucleic acid of Claim 35.

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3. (Twice Amended) The vector of Claim 2, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in a prokaryotic cell or a eukaryotic cell.

4. (Twice Amended) A host cell which contains a nucleic acid of Claim 35.

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5. (Twice Amended) The host cell of Claim 4, wherein said host cell is a prokaryotic cell or a eukaryotic cell.

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6. (Twice Amended) The host cell of Claim 5, wherein the prokaryotic cell is E.coli.

7. (Twice Amended) The host cell of Claim 5, wherein the eukaryotic cell is a mammalian cell or an insect cell.

10. (Thrice Amended) A process for preparing a polypeptide encoded by a nucleic acid of Claim 35 comprising

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- (a) culturing a prokaryotic cell or a eukaryotic cell in a culture medium, said prokaryotic cell or said eukaryotic cell comprising a vector comprising at least one nucleic acid of Claim 35, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in the prokaryotic cell or the eukaryotic cell and wherein culture conditions allow expression of a polypeptide or polypeptides encoded by the nucleic acid, and
 - (b) isolating the encoded polypeptide or polypeptides from the prokaryotic cell or the eukaryotic cell and/or optionally where the encoded polypeptide or polypeptides are secreted in the culture medium, isolating the polypeptide or polypeptides from the culture medium.

22. (Once Amended) The nucleic acid of Claim 35 which comprises a sequence that hybridizes with a sequence defined under (a) in 0.5 x SSC at 60°C.

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23. (Once Amended) The nucleic acid of Claim 35 which comprises a sequence that hybridizes with a sequence defined in (a) in 0.2 x SSC at 60°C.

24. (Once Amended) A host cell containing a vector according to Claim 2.

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25. (Once Amended) A host cell containing a vector according to Claim 3.

26. (Once Amended) The host cell of Claim 24 wherein said host cell is a prokaryotic cell or a eukaryotic cell.

27. (Once Amended) The host cell of Claim 25 wherein said host cell is a prokaryotic cell or a eukaryotic cell.

28. (Once Amended) The host cell of Claim 26 wherein said host cell is an E. coli cell.

29. (Once Amended) The host cell of Claim 27 wherein said host cell is an E. coli cell.

30. (Once Amended) The host cell of Claim 26 wherein said host cell is a mammalian cell or an insect cell.

31. (Once Amended) The host cell of Claim 27 wherein said host cell is a mammalian cell or an insect cell.